Cable Calculation for Single Phase Supply

Must be filled in beforehand			
Must be added to during Calculation			
Results to be used in conjunction with design			

Ze	Design Voltage	Power of unit(s) in Watts	Length of Run
0.04	230	1584	50

Type of Protection				Characteristics of Cable			Correction Factors (Cf)	
	Type	Rating	Zs					
BSEN60989	B	10	4.8	Size	2.5	mm	Ca	1
BS 88-2.1				Volt Drop	18	ma	Ci	1
BS 1361				R1 + R2	19.51	m.ohms/Mtr	Cg	0.72
BS3036							Cr	1

Calculation

$Ib = W/V$ $Ib =$ 6.89 AMPS

$In = Ib$ $In =$ 10 AMPS

$It = In/Cf$ $It =$ 13.89 AMPS

Voltage Drop $=$ $\dfrac{mv/a/mtr*1*Ib}{1000}$ 6.20 Volts

or

Length Allowed $=$ $\dfrac{9.2*1000}{mv/a/mtr*Ib}$ 74.21 Metres

Zs $=$ $Ze + \dfrac{(R1+R2)*1.2}{1000}$ 1.17 Ohms

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